Everglades Restoration Progress and Opportunities

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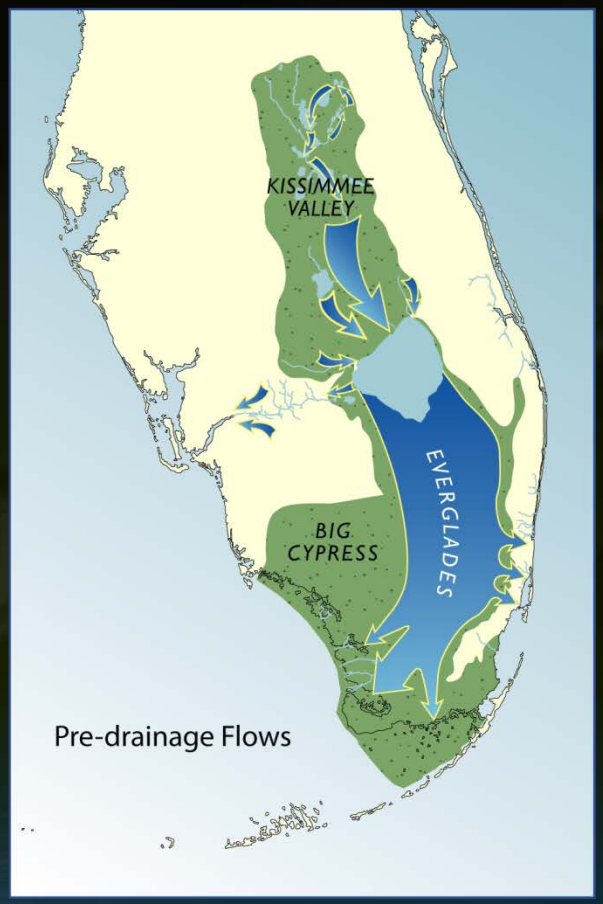
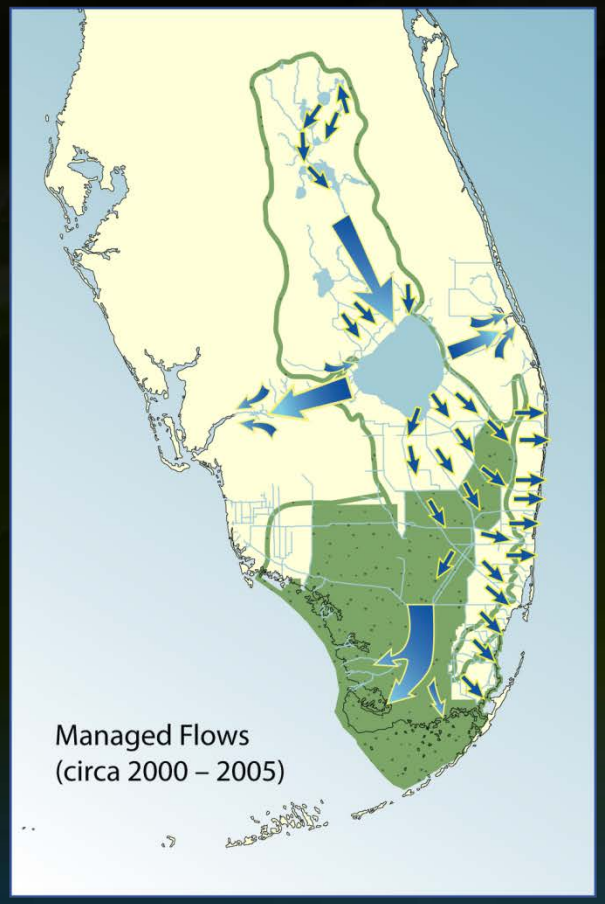
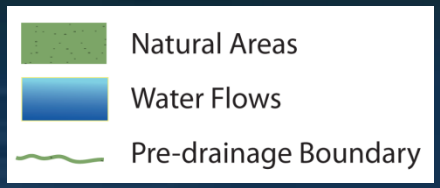
Director of Everglades Policy

January 24, 2013

Water Flows


KISSIMMEE VALLEY
EVERGLADES
BIG CYPRESS
Pre-drainage Flows

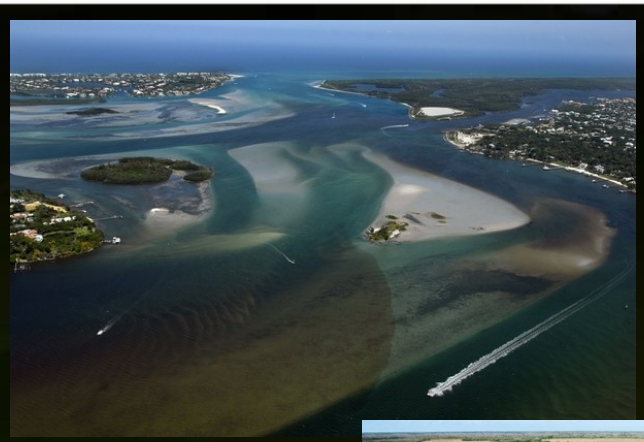

Managed Flows
(circa 2000 – 2005)


Natural Areas
Water Flows
Pre-drainage Boundary

Impacts of Alterations on the Natural System

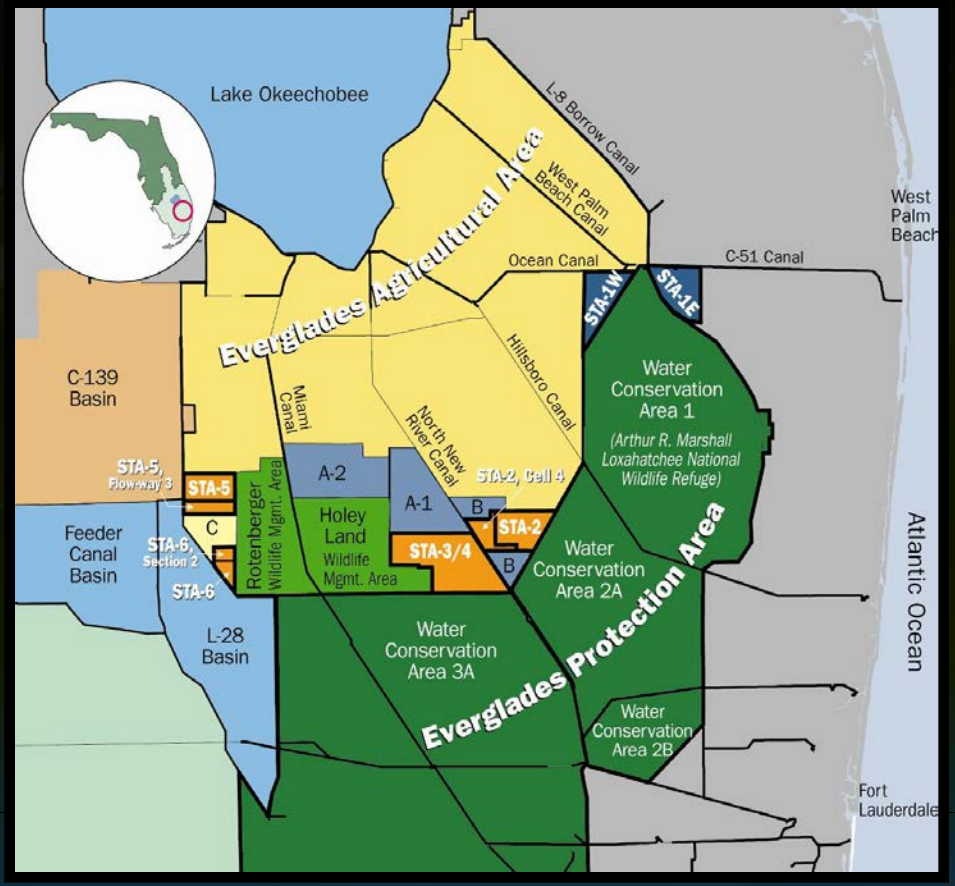
- Disruption in timing, distribution, quality and quantity of water
  - Imbalance of natural flora and fauna
  - Extreme high and low lake levels
  - Harmful freshwater discharges to the St. Lucie and Caloosahatchee estuaries

- Compartmentalization of remnant Everglades impedes natural flow:
  - Extreme high and low water levels
  - Undesirable shifts in vegetation
  - Loss of natural ridge and slough characteristics



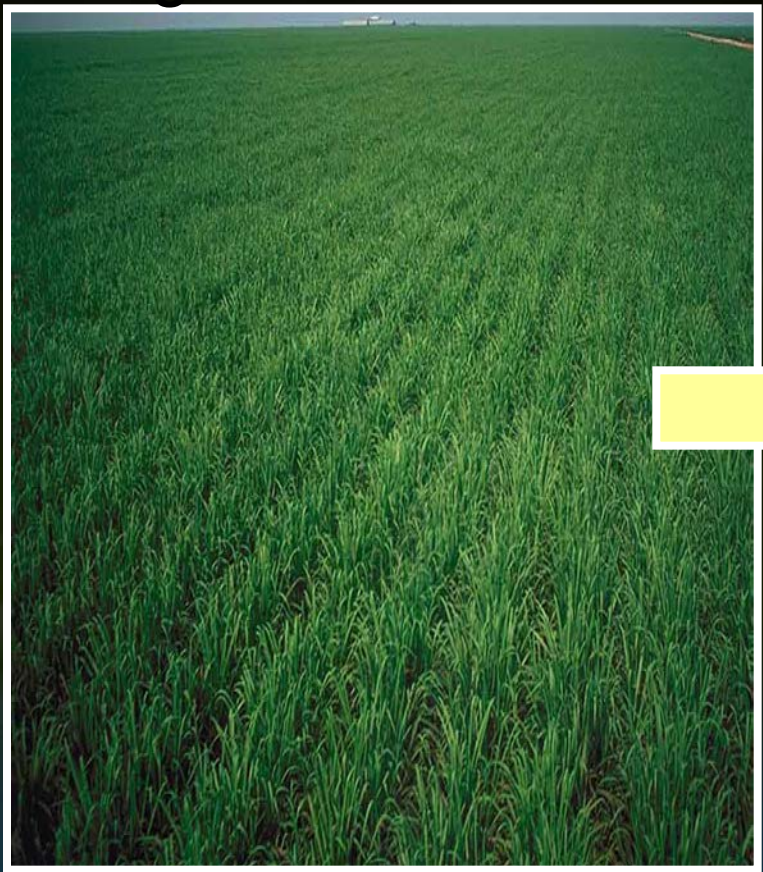
Water Quality
Florida's Commitment to Date

- $1.8 billion invested to date in Stormwater Treatment Area (STA) construction
  - 45,000 acres of effective treatment area constructed
  - Additional 11,700 acres under construction (2012 completion)
  - WY2011: STAs treated 735,000 acre-feet of water; reduced total phosphorus loads to the Everglades Protection Area by 79%
- Implemented Best Management Practices on 640,000 acres of land
  - Average phosphorus reduction of 55% over program's 16-year history (more than twice the amount required by law)
  - Active BMP program with continuous evaluation



Stormwater Treatment Areas

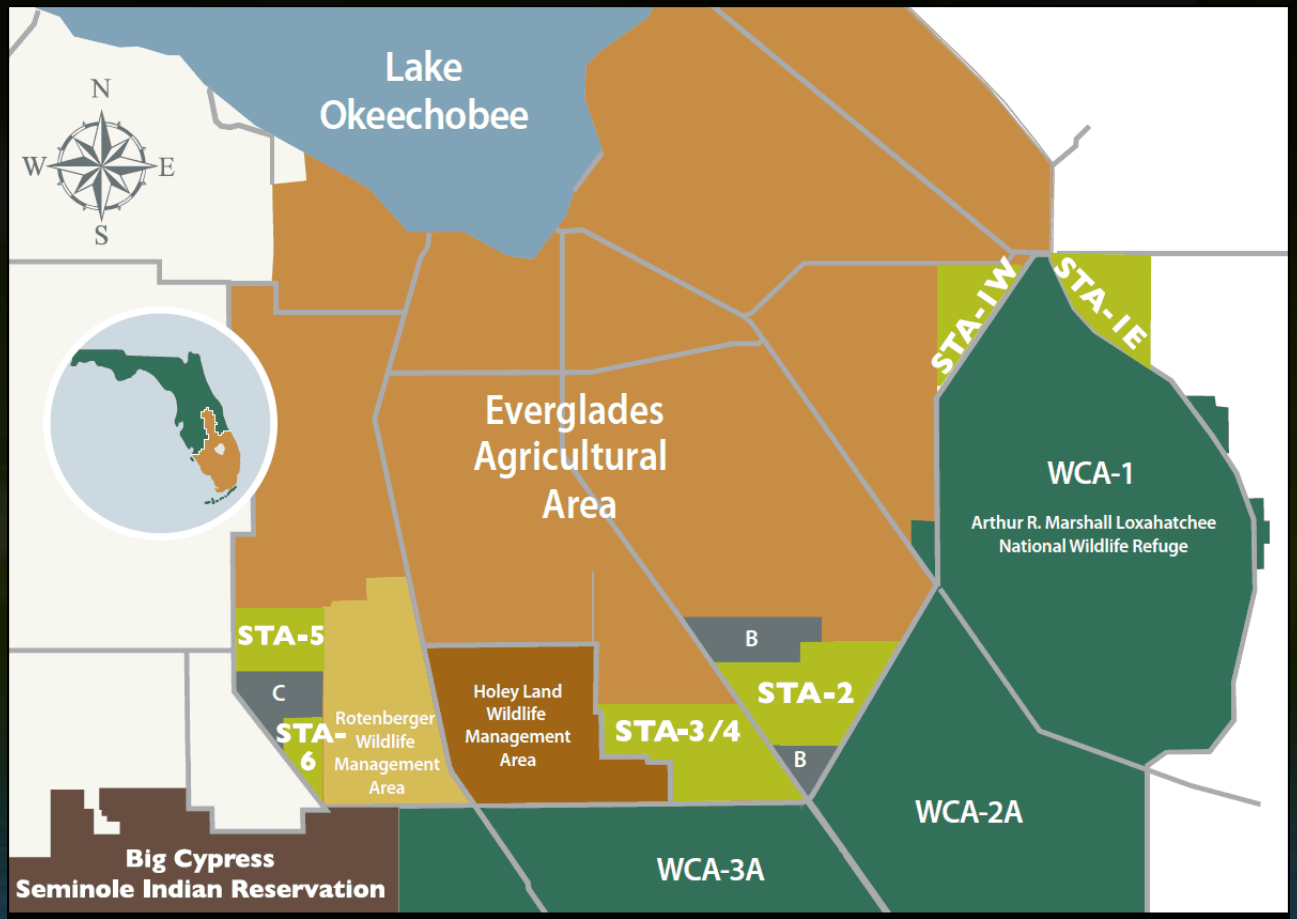
Agricultural Land



Constructed Wetland

Constructed wetlands designed to remove phosphorus through natural physical, chemical and biological processes

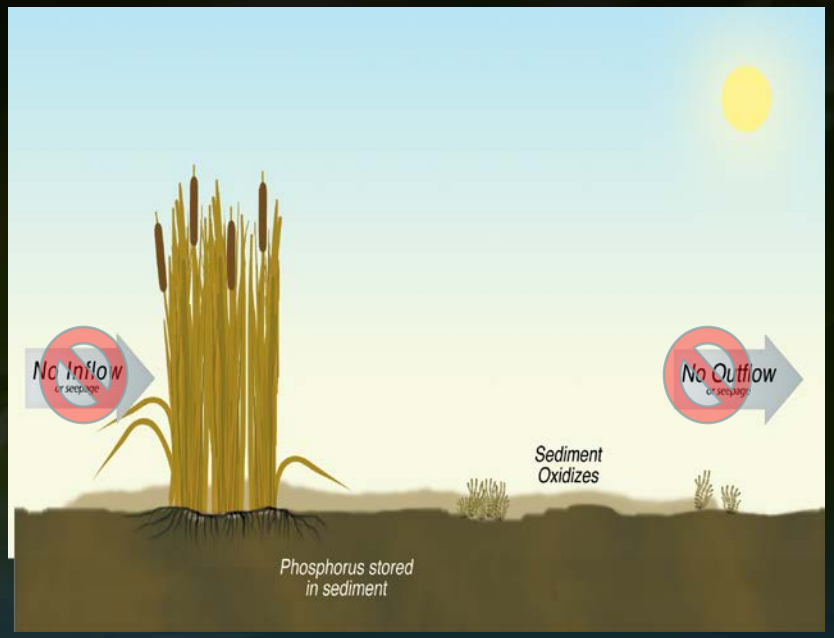
Stormwater Treatment Areas



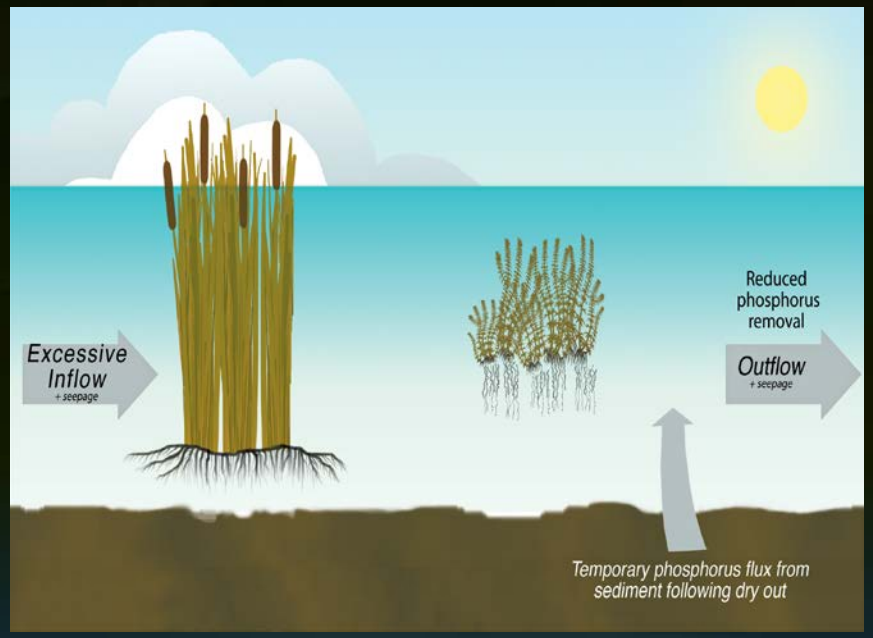
Areas in gray marked with a "B" or "C" represent the current expansion of existing Stormwater Treatment Areas

Stormwater Treatment Areas

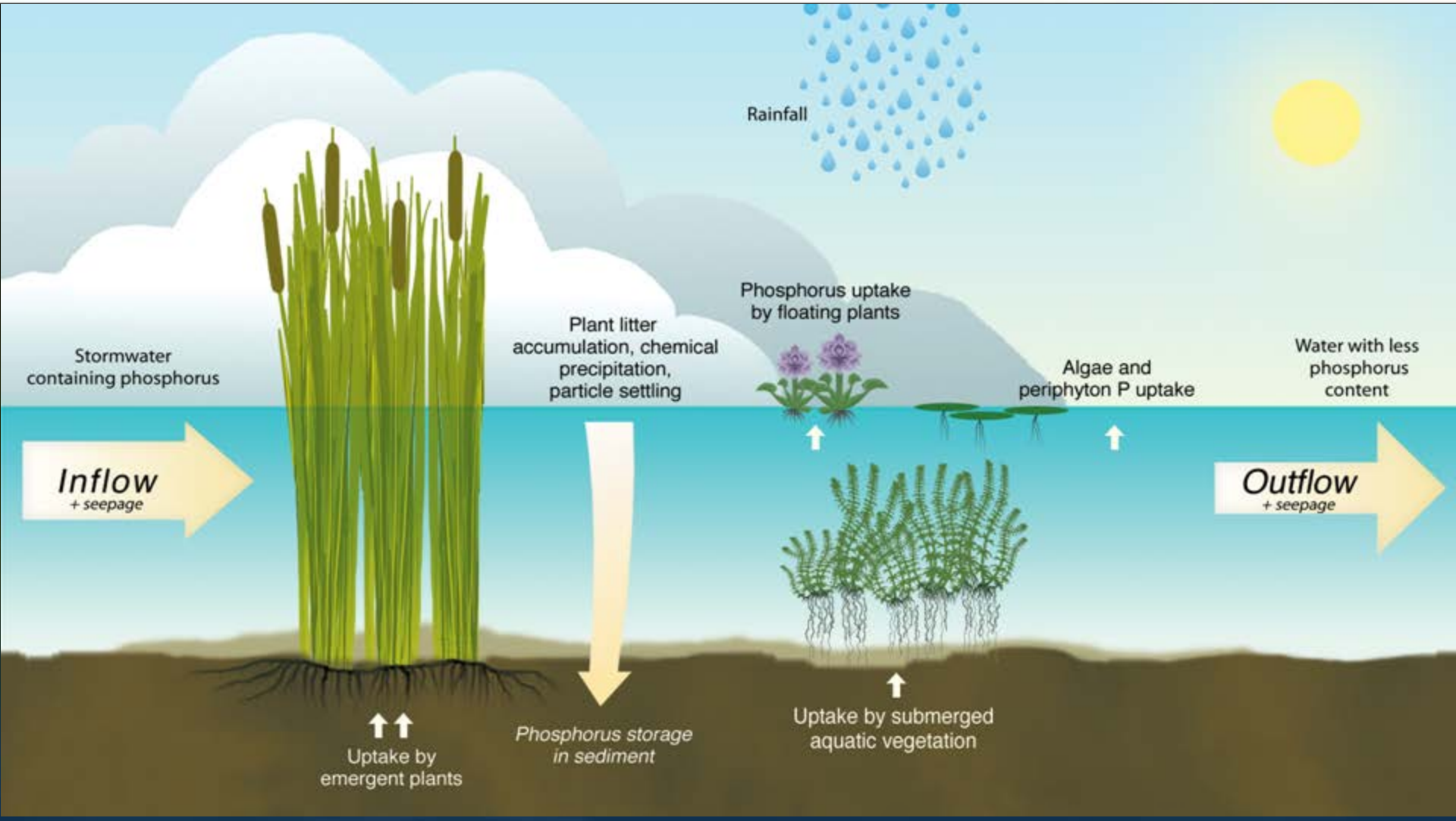
***Dry Out* -**
No Flow Conditions



***Deep Water* -**
Excessive Flow Conditions



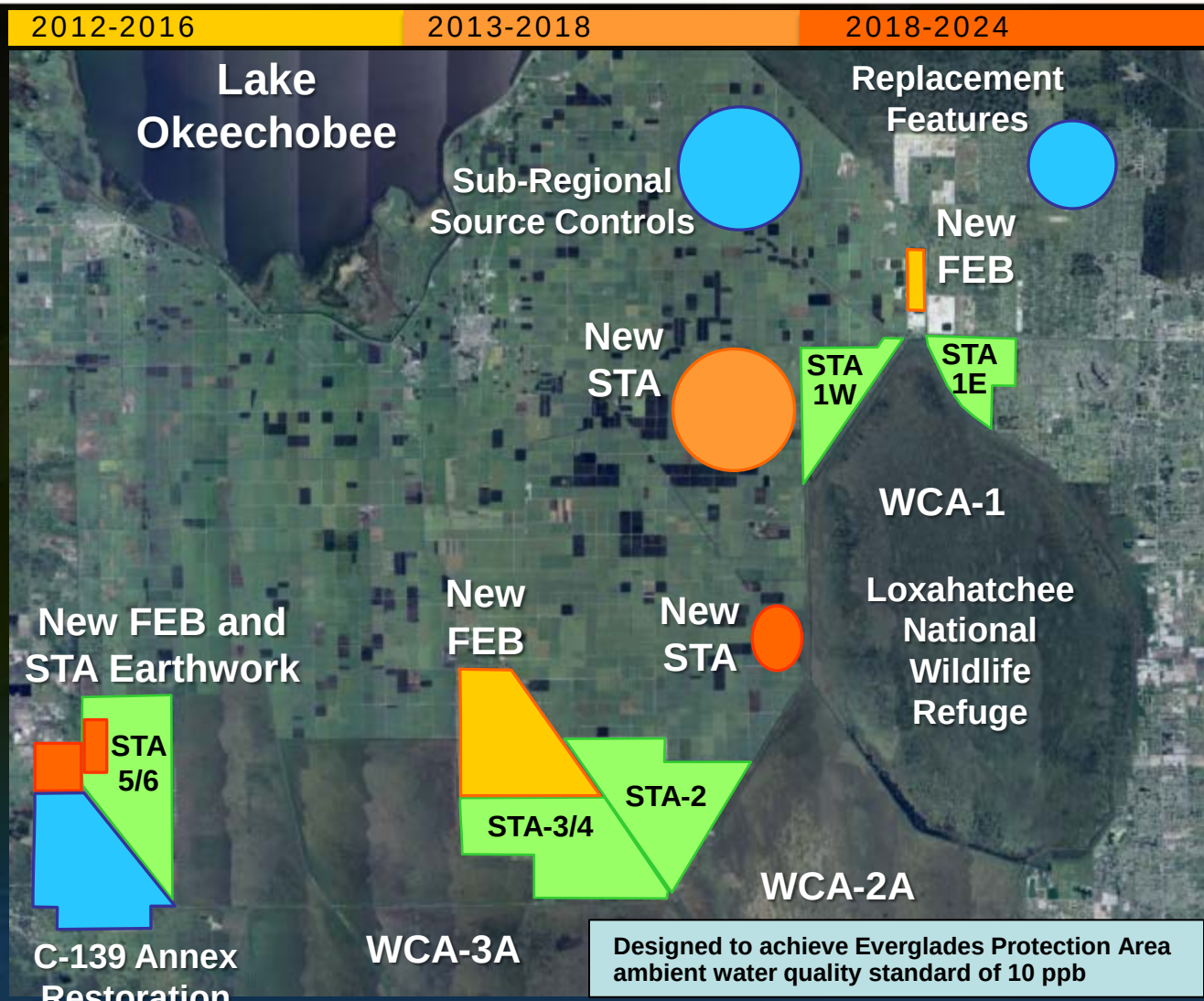
Stormwater Treatment Areas
Deep Water or Rewetting after Dry Conditions



Water Quality Key Projects

- Proposed projects developed to meet discharge limit necessary to achieve 10 parts per billion ambient water quality criterion established in rule for Everglades Protection Area
  - More than 100 modeling simulations
- Project Types
  - STA expansions
  - Flow equalization basins (FEBs)
- Additional Components
  - Sub-regional source controls
  - Habitat restoration

Key Projects
Construction Schedule

Summary

- **Storage and Treatment Facilities** *(2012-2024)*
  - 6,500 acres of Stormwater Treatment Area (STA)
  - 110,000 acre-feet of shallow storage (Flow Equalization Basins)
  - 800 acres of earthwork within existing STAs to maximize effective treatment area
- **Sub-Regional Source Controls** *(2015 – 2020)*
- **Replacement Features**
  - Phase 1 *(2015 – 2020)*
  - Phase 2 *(2019 – 2024)*
- **C-139 Annex Restoration Mitigation Project** *(2014-2018)*